

# Commonwealth of Massachusetts Executive Office of Energy & Environmental Affairs

# Department of Environmental Protection

Southeast Regional Office • 20 Riverside Drive, Lakeville MA 02347 • 508-946-2700

Charles D. Baker Governor

Karyn E. Polito Lieutenant Governor Matthew A. Beaton Secretary

> Martin Suuberg Commissioner

May 23, 2017

Mr. James Wyner, C.E.O. Shawmut Corporation 208 Manley Street West Bridgewater, MA 02379 **RE:** WEST BRIDGEWATER

Transmittal No.: X271534 Application No.: SE-16-021

Class: *SM80-7* FMF No.: 131214

CONSOLIDATION OF APPLICABLE

REQUIREMENT APPROVAL

Dear Mr. Wyner:

The Massachusetts Department of Environmental Protection ("MassDEP"), Bureau of Air and Waste, has reviewed your AQ33 LPA/CPA Consolidation of Previously Issued Plan Approvals Application ("Application") listed above. This Application concerns the proposed consolidation of relevant Plan Approvals and continued operation of process equipment at your flexible substrates manufacturing facility located at 208 Manley Street in West Bridgewater, Massachusetts ("Facility").

This Application was submitted in accordance with 310 CMR 7.02 Plan Approval and Emission Limitations as contained in 310 CMR 7.00 "Air Pollution Control" regulations adopted by MassDEP pursuant to the authority granted by Massachusetts General Laws, Chapter 111, Section 142 A-O, Chapter 21C, Section 4 and 6, and Chapter 21E, Section 6. MassDEP's review of your Application has been limited to air pollution control regulation compliance and does not relieve you of the obligation to comply with any other regulatory requirements.

MassDEP has determined that the Application is administratively and technically complete and that the Application is in conformance with the Air Pollution Control regulations and current air pollution control engineering practice, and hereby grants this **Plan Approval** for said Application, as submitted, subject to the conditions listed below.

Please review the entire Plan Approval, as it stipulates the conditions with which the Facility owner/operator ("Permittee") must comply in order for the Facility to be operated in compliance with this Plan Approval.

## 1. DESCRIPTION OF FACILITY AND APPLICATION

Shawmut Corporation is located at 208 Manley Street in West Bridgewater, Massachusetts. They are a laminator of a variety of flexible substrates with two principle processes: flame and thermoplastic lamination. They maintain a Standard Industrial Classification (SIC) Code of 2269 (Finishers of Textiles, Not Elsewhere Classified) and a North American Industry Classification System (NAICS) Code of 313320 (Fabric Coating Mills).

The facility includes a number of small exempt combustion sources and an existing 70 kW natural gas fired emergency engine/generator that was installed in 2015 in accordance with 310 CMR 7.26 and the Environmental Results Program (ERP). The facility also includes miscellaneous ancillary processes (e.g. cleaning, spray adhesive use, off-line pinhole dye testing) and three corona surface treatment units. The operation of the process equipment at the facility results in the emission of air contaminants including Particulate Matter (PM), Volatile Organic Compounds (VOC), Ozone (O<sub>3</sub>), and Hazardous Air Pollutants<sup>1</sup> (HAP).

The original new source approval for the Shawmut Corporation West Bridgewater facility was Application No. SM-82-061-IF which authorized the relocation of various paper and fabric processing equipment and associated air pollution control equipment from a former location at 208 Canton Street in Stoughton. The paper and fabric processing equipment included 8 flame laminators. A number of flame laminators, and associated equipment, have been permanently decommissioned such that two flame laminators remain designated Emission Unit No. 1. A fabric filter that was installed voluntarily to control visible emissions from flame laminators 5 and 8 has been decommissioned as laminator 8 was decommissioned and laminator 5 is no longer a significant source of visible emissions due to improvements in the burners. The formerly approved Adhesive Lamination process, and associated equipment and cleaning, has been permanently decommissioned. A process designated as the online pin hole dye tester has also been permanently decommissioned.

In a letter dated August 20, 2014, the United States Environmental Protection Agency (USEPA) determined that, because of the decommissioning of certain equipment at the Shawmut Corporation facility, the Permittee was no longer a major source of Hazardous Air Pollutants (HAP) and was no longer subject to 40 CFR Part 63, Subpart JJJJ, 40 CFR Part 63, Subpart MMMMM or 40 CFR Part 63, Subpart DDDDD. The USEPA letter also states that the Permittee is subject to the area source requirements of 40 CFR Part 63, Subpart ZZZZ. The engine that was subject to requirements at 40 CFR Part 63, Subpart ZZZZ, was replaced in 2015 by an engine which complies with Subpart ZZZZ by complying with the requirements at 40 CFR Part 60, Subpart JJJJ.

In a letter dated December 7, 2015, the MassDEP determined that based on physical changes at the facility, and the August 20, 2014 letter from U.S. EPA stating that the Shawmut Corporation facility was no longer subject to above referenced rules under 40 CFR Part 63 which required the facility obtain a Title V operating permit, the facility was no longer a major source of NO<sub>x</sub>,

<sup>&</sup>lt;sup>1</sup> Hazardous Air Pollutant(s), as listed in the 1990 Clean Air Act (CAA) Amendments, Section 112(b).

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VOC, SO<sub>2</sub>, CO, PM or HAP, and therefore not subject to, permitting requirements at 310 CMR 7.00 Appendix C: Operating Permit and Compliance Program. At that time, MassDEP rescinded Final Air Quality Operating Permit No. 4V95144, and terminated the review of Shawmut's pending renewal application.

#### **Applicable Regulatory Requirements**

The remaining flame lamination process was originally approved as part of Plan Application No. SM-82-061-IF, and was subsequently modified by Plan Application Nos. 4P89133, 4P95162 and 4P00052 which ultimately established emission limitations for the process on a monthly and consecutive twelve month period basis. Plan Application No. 4P93104 authorized the installation and operation of the three remaining off-line corona surface treatment units and established operational and emission limitations. Plan Application No. 4P95162 established facility-wide monthly and annual O<sub>3</sub> emission limitations for the corona surface treatment process. Plan Application No. 4P02016 restated short-term and long-term emission limitations for the flame lamination process and corona surface treatment units and also established emission limitations for the thermoplastic (Hot Melt) lamination process as well as establishing emission limitations for miscellaneous solvent (VOC) usage. Plan Approval No. 4P07026 authorized the construction and operation of a pin-hole dye tester that has since been permanently decommissioned.

The emission units have potential emissions less than the applicable thresholds for major New Source Review including Prevention of Significant Deterioration (PSD) review under 40 CFR Part 51, 40 CFR 52.21, and Emission Offsets and Nonattainment Review under 310 CMR 7.00 Appendix A. The facility is not a major source of HAPs and no MACT standards apply to the existing process equipment.

The natural gas fired 70 kW emergency engine is subject to applicable requirements at 310 CMR 7.26 and the Standards of Performance for New Stationary Sources as found at 40 CFR Part 60, Subpart JJJJ. The facility also includes fuel utilization equipment such as space heaters, small boilers and process heaters that are operated in accordance with the exemption at 310 CMR 7.02(2)(b)15.

# 2. EMISSION UNIT IDENTIFICATION

Each Emission Unit ("EU") identified in Table 1 is subject to and regulated by this Plan Approval:

Table 1					
EU	Description	Design Capacity	Pollution Control Device (PCD)		
EU1	Flame Laminators 5 and 6	Flame Laminator 5: 1.54 MMBtu/hr (total for two natural gas burners) Flame Laminator 6:	N/A		
		1.39 MMBtu/hr (total for two natural gas burners)			
EU2	3 Corona Surface Treatment units (No. 1, 2 and 3)	5kW (each)	N/A		
EU3	Thermal Laminators (TSG 5 and TSG 6) – Hot Melt Adhesive	4000 yds/hr (each)	N/A		
EU4	Miscellaneous non-combustion VOC sources	N/A	N/A		

Table 1 Key:

EU = Emission Unit Number kW = kilowatt

MMBtu/hr = million British thermal units per hour

N/A = not applicable

No. = number

PCD = Pollution Control Device VOC = Volatile Organic Compounds

yds/hr = yards per hour

# 3. APPLICABLE REQUIREMENTS

#### A. OPERATIONAL, PRODUCTION and EMISSION LIMITS

The Permittee is subject to, and shall not exceed the Operational, Production, and Emission Limits as contained in Table 2:

Table 2				
EU	Operational / Production Limit	Air Contaminant	Emission Limit	
EU1	Finished Material 1 (Ether FR 3-ply):	PM/PM <sub>10</sub> /PM <sub>2.5</sub> Note 2	2.98 TPM	
	1.) 3 MMyds/month 2.) 8 MMyds/year (Note 1)  Finished Material 2 (All other Products): 3.) 5 MMyds/month 4.) 15 MMyds/year (Note 1)		8.53 TPY	
		HCl/HAP Note 2	3.51 TPM	
			9.89 TPY	
		VOC	0.7 TPM	
			6.0 TPY	
		Visible Emissions	310 CMR 7.06(1)(a) & (b)	

Table 2				
EU	Operational / Production Limit	Air Contaminant	Emission Limit	
EU2	5.) ≤ 400,000 kWh/year (Note 1)	$O_3$	0.005 lb/kWh	
			0.5 TPM	
			1.0 TPY	
EU3	N/A	VOC	0.2 TPM	
	N/A		1.0 TPY	
EU4	N/A	VOC	0.2 TPM	
	IV/A		1.0 TPY	

#### Table 2 Notes:

Note 1: The term "year", as used in this table, shall mean any consecutive twelve month period

Note 2: See Special Terms and Conditions Provision No. 1 and Provision No. 2 for approved emission factors.

#### Table 2 Key:

CMR = Code of Massachusetts Regulations

EU = Emission Unit

HCl = Hydrogen Chloride (HAP)

HAP = Hazardous Air Pollutant(s), as listed in the 1990 Clean Air Act (CAA) Amendments, Section 112(b).

Lb/kWh = pound(s) per kilowatt-hour

kWh/year = kilowatt-hour per consecutive 12-month period

MMyds/month = million yards per month

MMyds/year = million yards per consecutive 12-month period

N/A = Not Applicable

 $O_3 = Ozone$ 

 $PM = Total \ Particulate \ Matter$ 

 $PM_{10}$  = Particulate Matter less than or equal to 10 microns in diameter

 $PM_{2.5}$  = Particulate Matter less than or equal to 2.5 microns in diameter

VOC = Volatile Organic Compound(s)

TPM = tons per month

TPY = tons per consecutive 12-month period

 $\leq$  = less than or equal to

/ = per

#### B. <u>COMPLIANCE DEMONSTRATION</u>

The Permittee is subject to, and shall comply with, the monitoring, testing, record keeping, and reporting requirements as contained in Tables 3, 4, and 5:

Table 3			
EU	Monitoring and Testing Requirements		
EU1	1. Permittee shall quantify throughput of Finished Material in order to demonstrate compliance with production limitations in Table 2.		
EU2	2. Permittee shall quantify power consumption of corona surface treatment units in order to demonstrate compliance with power limitation in Table 2.		
EU3, EU4	3. Permittee shall quantify VOC as contained in materials used in order to demonstrate compliance with emission limitations in Table 2.		

	Table 3			
EU	Monitoring and Testing Requirements			
Facility- wide	4. The Permittee shall monitor all operations to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration.			
	<ol> <li>If and when MassDEP requires it, the Permittee shall conduct emission testing in accordance with USEPA Reference Test Methods and Regulation 310 CMR 7.13.</li> </ol>			
	<ol> <li>At least 30 days prior to emission testing, the Permittee shall submit to MassDEP for approval a stack emission pretest protocol.</li> </ol>			
	7. Within 45 days after emission testing, the Permittee shall submit to MassDEP a final stack emission test results report.			

Table 3 Key:

CMR = Code of Massachusetts Regulations
EU = Emission Unit Number

USEPA = United States Environmental Protection Agency VOC = Volatile Organic Compound(s)

	Table 4				
EU	Record Keeping Requirements				
Facility- wide	1.	The Permittee shall maintain adequate records on-site to demonstrate compliance status with all operational, production, and emission limits contained in Table 2 above. Records shall also include the actual emissions of air contaminant(s) emitted for each calendar month and for each consecutive twelve-month period (current month plus prior eleven months). These records shall be compiled no later than the 15 <sup>th</sup> day following each month. An electronic version of the MassDEP approved record keeping form, in Microsoft Excel format, can be downloaded at <a href="http://www.mass.gov/eea/agencies/massdep/air/approvals/limited-emissions-record-keeping-and-reporting.html#WorkbookforReportingOn-SiteRecordKeeping">httml#WorkbookforReportingOn-SiteRecordKeeping</a> .			
	The Permittee shall maintain records of monitoring and testing as required by Table 3.				
	3. The Permittee shall maintain a copy of this Plan Approval, underlying Application date SOMP for the EU(s) approved herein on-site.				
	4.	The Permittee shall maintain a record of all malfunctions affecting air contaminant emission rates on the approved EU(s). At a minimum, the records shall include: date and time the malfunction occurred; description of the malfunction; corrective actions taken; the date and time corrective actions were initiated and completed; and the date and time emission rates and monitoring equipment returned to compliant operation.			
	5.	The Permittee shall maintain records to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration.			

Table 4				
EU	EU Record Keeping Requirements			
Facility- wide	6. The Permittee shall maintain records required by this Plan Approval on-site for a minimum of five (5) years.			
	7. The Permittee shall make records required by this Plan Approval available to MassDEP and USEPA personnel upon request.			

#### Table 4 Key:

CMR = Code of Massachusetts Regulations

EU = Emission Unit Number

PCD = Pollution Control Device

SOMP = Standard Operating and Maintenance Procedure

USEPA = United States Environmental Protection Agency

Table 5					
EU	Reporting Requirements				
Facility- wide	- * The signature of a Responsible Official has defined in 510 Clyrk 7.00 and shall include the Certifical				
	2.	The Permittee shall notify the Southeast Regional Office of MassDEP, BAW Compliance and Enforcement Chief by telephone: 508-946-2817, email: SERO.Air@massmail.state.ma.us, or fax: 508-792-7621, as soon as possible, but no later than three (3) business day after discovery of an exceedance(s) of Table 2 requirements. A written report shall be submitted Permit Chief at MassDEP within ten (10) business days thereafter and shall include: identification of exceedance(s), duration of exceedance(s), reason for the exceedance(s), corrective actions taken, and action plan to prevent future exceedance(s).			
	3.	The Permittee shall report to MassDEP, in accordance with 310 CMR 7.12, all information as required by the Source Registration/Emission Statement Form. The Permittee shall note therein any minor changes (under 310 CMR 7.02(2)(e), 7.03, 7.26, etc.), which did not require Plan Approval.			

#### Table 5 Key:

BAW = Bureau of Air and Waste

 $CMR = Code\ of\ Massachusetts\ Regulations$ 

EU = Emission Unit Number

# 4. SPECIAL TERMS AND CONDITIONS

A. The Permittee is subject to, and shall comply with, the Special Terms and Conditions as contained in Table 6 below:

Table 6				
EU	Special Terms and Conditions			
1. Approved Emission Factors for EU1 for PM are as follows:				
EU1	Foam Type:	PM (lb/MMyd):		
	Ester FR 2-ply	157		
	Ester FR 3-ply	314		
	Ester NFR 2-ply	79		
	Ester NFR 3-ply	158		
	Ether FR 2-ply	538		
	Ether FR 3-ply	1076		
	Ether NFR 2-ply	269		
	Ether NFR 3-ply	538		
	2. Approved Emission Factor	rs for EU1 for HCl a	re as follows:	
	Foam Type:	HCl		
		(lb/MMyd):		
	Ester FR 2-ply	235		
	Ester FR 3-ply	470		
	Ester NFR 2-ply	104		
	Ester NFR 3-ply	208		
	Ether FR 2-ply	638		
	Ether FR 3-ply	1276		
	Ether NFR 2-ply	319		
	Ether NFR 3-ply	638		
	3. Visible emissions, exclu	iding uncombined wa	ater vapor, shall not exceed the limitations contained in	
	310 CMR 7.06(1). Thes	e limits apply during	all modes of operation, including startups and	
			these limitations shall be reported to the MassDEP in	
	writing or by fax within		-	
			an Approval No. SM-82-061-IF, Plan Approval	
Facility-	No.4P89133, Plan Approval No. 4P93104, Plan Approval No. 4P95162, Plan Approval No. 4P00052,			
wide	Plan Approval No. 4P02016 and Plan Approval No. 4P07026 issued to the Permittee with the			
			naterials submitted as part of the underlying applications	
	become part of Application No. SE-16-021.			
	Table 6 Kev:			

Table 6 Key:

EU = Emission Unit Number HCl = Hydrogen Chloride lb/MMyd = pound per million yards PM = Total Particulate Matter

- B. The Permittee shall install and use an exhaust stack, as required in Table 7, on each of the Emission Units that is consistent with good air pollution control engineering practice and that discharges so as to not cause or contribute to a condition of air pollution. Each exhaust stack shall be configured to discharge the gases vertically and shall not be equipped with any part or device that restricts the vertical exhaust flow of the emitted gases, including, but not limited to, rain protection devices known as "shanty caps" and "egg beaters."
- C. The Permittee shall install and utilize exhaust stacks with the following parameters, as contained in Table 7, for the Emission Units that are regulated by this Plan Approval:

	Table 7					
EU	Stack Height Above Ground (feet)	Stack Inside Exit Dimensions (feet)	Stack Gas Exit Velocity Range (feet per second)	Stack Gas Exit Temperature Range (°F)		
EU1 (FL5)	55	2	20-40	100-120		
EU1 (FL6)	49	2	20-40	100-120		
EU2			g.v.			
EU3 (TSG 5)	40	2.33	35	80		
EU3 (TSG 6)	40	2.33	35	80		
EU4	g.v.					

#### Table 7 Key:

EU = Emission Unit Number °F = Degree Fahrenheit g.v.= general ventilation

# 5. GENERAL CONDITIONS

The Permittee is subject to, and shall comply with, the following general conditions:

- A. Pursuant to 310 CMR 7.01, 7.02, 7.09 and 7.10, should any nuisance condition(s), including but not limited to smoke, dust, odor or noise, occur as the result of the operation of the Facility, then the Permittee shall immediately take appropriate steps including shutdown, if necessary, to abate said nuisance condition(s).
- B. If asbestos remediation/removal will occur as a result of the approved construction, reconstruction, or alteration of this Facility, the Permittee shall ensure that all removal/remediation of asbestos shall be done in accordance with 310 CMR 7.15 in its entirety and 310 CMR 4.00.

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- C. If construction or demolition of an industrial, commercial or institutional building will occur as a result of the approved construction, reconstruction, or alteration of this Facility, the Permittee shall ensure that said construction or demolition shall be done in accordance with 310 CMR 7.09(2) and 310 CMR 4.00.
- D. Pursuant to 310 CMR 7.01(2)(b) and 7.02(7)(b), the Permittee shall allow MassDEP and / or USEPA personnel access to the Facility, buildings, and all pertinent records for the purpose of making inspections and surveys, collecting samples, obtaining data, and reviewing records.
- E. This Plan Approval does not negate the responsibility of the Permittee to comply with any other applicable Federal, State, or local regulations now or in the future.
- F. Should there be any differences between the Application and this Plan Approval, the Plan Approval shall govern.
- G. Pursuant to 310 CMR 7.02(3)(k), MassDEP may revoke this Plan Approval if the construction work is not commenced within two years from the date of issuance of this Plan Approval, or if the construction work is suspended for one year or more.
- H. This Plan Approval may be suspended, modified, or revoked by MassDEP if MassDEP determines that any condition or part of this Plan Approval is being violated.
- I. This Plan Approval may be modified or amended when in the opinion of MassDEP such is necessary or appropriate to clarify the Plan Approval conditions or after consideration of a written request by the Permittee to amend the Plan Approval conditions.
- J. Pursuant to 310 CMR 7.01(3) and 7.02(3)(f), the Permittee shall comply with all conditions contained in this Plan Approval. Should there be any differences between provisions contained in the General Conditions and provisions contained elsewhere in the Plan Approval, the latter shall govern.

## 6. MASSACHUSETTS ENVIRONMENTAL POLICY ACT

MassDEP has determined that the filing of an Environmental Notification Form (ENF) with the Secretary of Energy & Environmental Affairs, for air quality control purposes, was not required prior to this action by MassDEP. Notwithstanding this determination, the Massachusetts Environmental Policy Act (MEPA) and 301 CMR 11.00, Section 11.04, provide certain "Fail-Safe Provisions," which allow the Secretary to require the filing of an ENF and/or an Environmental Impact Report (EIR) at a later time.

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## 7. <u>APPEAL PROCESS</u>

This Plan Approval is an action of MassDEP. If you are aggrieved by this action, you may request an adjudicatory hearing. A request for a hearing must be made in writing and postmarked within twenty-one (21) days of the date of issuance of this Plan Approval.

Under 310 CMR 1.01(6)(b), the request must state clearly and concisely the facts, which are the grounds for the request, and the relief sought. Additionally, the request must state why the Plan Approval is not consistent with applicable laws and regulations.

The hearing request along with a valid check payable to the Commonwealth of Massachusetts in the amount of one hundred dollars (\$100.00) must be mailed to:

Commonwealth of Massachusetts
Department of Environmental Protection
P.O. Box 4062
Boston, MA 02211

This request will be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver as described below. The filing fee is not required if the appellant is a city or town (or municipal agency), county, or district of the Commonwealth of Massachusetts, or a municipal housing authority.

MassDEP may waive the adjudicatory hearing-filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request as provided above, an affidavit setting forth the facts believed to support the claim of undue financial hardship.

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Enclosed is a stamped approved copy of the application submittal.

Should you have any questions concerning this Plan Approval, please contact Peter Russell by telephone at (508) 946-2821, or in writing at the letterhead address.

#### Sincerely,

This final document copy is being provided to you electronically by the Department of Environmental Protection. A signed copy of this document is on file at the DEP office listed on the letterhead.

Thomas Cushing, Chief Permit Section Bureau of Air and Waste

#### **Enclosures:**

- Communication for Non-English Speaking Parties
- Approved Application

#### ecc:

West Bridgewater Board of Health West Bridgewater Fire Department Shawmut Corporation, attn.: Kevin Souza Epsilon Associates, attn.: Dale Raczynski

MassDEP/Boston, attn.: Yi Tian

MassDEP/SERO, attn.: Maria Pinaud, Elza Bystrom, Peter Russell